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CLAIMS

A method for treating tumors in a mammal comprising:
administering to the mammal spores of a toxin-

administering to the mammal a microtubule stabilizing anti-tumor agent;

whereby the tumor regresses or its growth is slowed or arrested.

defective, anaerobic bacterium; and

- 2. The method of claim 1 wherein the anaerobic bacterium is Clostridium novyi.
- 3. The method of claim 1 wherein the anaerobic bacterium is Clostridium sordellii.
- 4. The method of claim 1 wherein the spores are administered intravenously.
- 5. The method of claim 1 wherein the spores are administered intratumorally.
- 6. The method of claim 1 wherein all or part of a toxin gene of a wild type form of the anaerobic bacterium is deleted.
- 7. The method of claim 1 wherein the anti-tumor agent is a taxane.
- 8. The method of claim 1 wherein the anti-tumor agent is selected from the group consisting of 10-deacetyltaxol; 7-epi-10-deacetyltaxol; 7-xylosyl-10-deacetyltaxol; 7-epi-taxol; cephalomannine; baccatin III; baccatin V; 10-deacetylbaccatin III; 7-epi-10-deacetylbaccatin III; 2-debenzoyl-2-(p-trifluromethylbenzoyl)taxol; and 20-acetoxy-4-deacetyl-5-epi-20,O-secotaxol.
- 9. The method of claim 1 wherein the anti-tumor agent is selected from the group consisting of arsenic trioxide, discodermolide, epothilone B, and (+)-14-normethyldiscodermolide.
 - 10. The method of claim 1 wherien the anti-tumor agent is taxol.

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11. The method of claim 1 wherien the anti-tumor agent is taxotere.

- 12. The method of claim 1 wherien the anti-tumor agent is cephalomannine.
 - 13. The method of claim 1 further comprising: administering a nitric oxide synthetase (NOS) inhibitor to the mammal.
- 14. The method of claim 1 wherein the spores and anti-tumor agent are administered serially.
- 15. The method of claim 13 wherein the spores, anti-tumor agent and NOS inhibitor are administered serially.
- 16. A kit for treating tumors, wherein components of the kit are in a divided or undivided container, said components comprising: spores of an anaerobic bacterium which is toxin-defective; an agent which stabilizes microtubules.
- 17. The kit of claim 16 wherein all or part of a toxin gene of a wild type form of the anaerobic bacterium is deleted in the spores of the anaerobic bacterium.
- 18. The kit of claim 16 further comprising a nitric oxide synthetase inhibitor.
- 19. The kit of claim 16 wherein the anaerobic bacterium is Clostridium novyi.
- 20. The kit of claim 16 wherein the anaerobic bacterium is Clostridium sordellii.
 - 21. The kit of claim 16 wherein the agent is taxol.
 - 22. The kit of claim 16 wherein the agent is taxotere.
 - 23. The kit of claim 16 wherein the agent is cephalomannine.
 - 24. The kit of claim 16 wherein the agent is a taxane.